'A matter of faith, not science': analysis of media coverage of prostate cancer screening in Australian news media 2003–2006

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SUMMARY

Objective Despite a near universal absence of evidence-based policies supporting population screening for prostate cancer, the prostate-specific antigen (PSA) test is aggressively promoted in the media as a life-saving form of screening. The objective of this study was to examine media coverage of prostate-cancer screening in Australia.

Design Frame analysis of all direct or attributed quotes about prostate cancer.

Setting Australian capital city newspapers (February 2003–December 2006) and Sydney television news (January 2003–December 2006).

Main outcome measures Quotes regarding prostate cancer screening: *n*=436 in newspapers and television news.

Results Seven rhetorical frames were identified. 86% of all quotes framed prostate screening and its outcomes as desirable, associating PSA testing as being consonant with other early-detection cancer-control messages. Adverse surgical sequelae to screening were often minimized, scientific progress highlighted and gender equity appeals appropriated. Those questioning screening were vilified, with epidemiology being framed as an inferior form of knowledge than clinical experience.

Conclusions Australian men are exposed to unbalanced and often non-evidence-based appeals to seek PSA testing. There is a disturbing lack of effort to redress this imbalance.

BACKGROUND

Population screening for prostate cancer using the prostate-specific antigen (PSA) test remains a highly contested area in cancer-control policy. Almost all leading health-care and cancer-control agencies do not endorse promotion of the test for screening, arguing that it remains of unproven value in reducing mortality and that its widespread use results in significant levels of avoidable morbidity and reduced quality of life among men who consequently undergo treatment.

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The International Union Against Cancer states 'there is no evidence' that population-based screening for prostate cancer reduces mortality rates,[1] joining the US Preventive Services Task Force,[2] and the UK's National Screening Committee[3] in not recommending population screening. No European nation endorses prostate-cancer screening.[4] In Australia, population screening is not supported by the Urological Society of Australia and New Zealand,[5] the Australian Prostate Cancer Collaboration[6] or any Cancer Council.[7] It appears that only one leading cancer-control agency (the American Cancer Society) advocates screening for the disease.[8]

Despite this, widespread PSA testing occurs in many nations. Screening asymptomatic men for prostate cancer results in large numbers of men being subsequently invasively investigated and undergoing major surgery, when the benefits of this in preventing men dying from prostate cancer (rather than dying *with* it, but from another cause) remain unproven. A 2002 review[9] concluded that if one million men over 50 years of age were screened,

> *'about 110,000 with raised PSAs will face the anxiety of possible cancer, about 90,000 will undergo biopsy, and 20,000 will be diagnosed with cancer. If 10,000 of these men underwent surgery, about ten would die of the operation, 300 will develop severe urinary incontinence and even in the best hands 4,000 will become impotent. The number of men whose prostate cancer would have impinged on their lives is unknown.'*

A 2006 Cochrane Review found no evidence of differing mortality rates between tested and untested control groups,[10] and recent studies[11,12] have questioned the reliability of PSA testing.

Despite this, highly organized campaigns are urging men to 'get tested' in Australia[13] and many other nations. In Australia, promotion of PSA testing has seen large-scale uptake. In 2005, in a male population aged over 50 of just over three million, the government reimbursed the cost of 1,209,556 PSA tests, of which approximately 58% were for screening and case-finding.[14]

Public discourse on screening

Those urging that men be tested seldom use the term 'screening', but by directing the message at all men aged

over 50, their intention is effectively to promote wholesale screening. Screening advocates often include men diagnosed and treated for prostate cancer, urologists and some non-government advocacy groups, including those supported by the manufacturers of prostate-cancer treatments.[15] These advocates have sometimes been aggressive in attacking those who have expressed reservations about the wisdom of screening.[16] In 2001, the editors of the *Western Journal of Medicine* reported being subjected to particularly vicious lobbying and character assassination following cautious remarks they made in the *San Francisco Chronicle* about prostate-cancer screening. Efforts were made to have them dismissed from their roles, and they were said to be promoting 'geriatricide'.[17]

Australia has seen febrile, often acrimonious debate on prostate-cancer screening. In February 2003, an interview with Professor Alan Coates, chief executive of the Cancer Council Australia, then aged 59, was published in the *Australian Financial Review*.[18] He stated that he had personally chosen to not have a PSA test, arguing:

> *'The test may find things that didn't need to be found or it may find things when it is too late to fix them. The supposition is that there is a group in between where it finds something early enough to make a real difference, but there is no proof that such a window of opportunity exists.'*[18]

The article generated widespread, overwhelmingly negative responses from several Australian urologists and cancer survivors, including two federal politicians who were incendiary in their criticism, particularly in parliament.[19,20] An editorial called Coates 'the apostate professor' whose actions will have 'confused thousands of men'.[21] Coates protested that to be an apostate, one must have once believed.[22]

This public discourse would have been consumed by millions of Australians used to encountering cancer-control officials enthusiastically promoting population screening for cervical, breast and colorectal cancer, stressing the importance of early detection. A recent study found that over two-thirds of Victorian adults believed their chances of surviving prostate cancer would be very much improved by early detection.[23] US evidence shows 87% of adults believe that routine cancer screening is almost always a good idea and that finding cancer early can save lives (74% said most or all of the time). Seventy-seven percent of men said that they would try to keep having a PSA test even if a physician recommended that they stopped having or had less frequent testing.[24]

A senior cancer-control authority publicly declaring that he personally would not seek testing would thus have appeared to many as heretical and counter-intuitive. Against this background, and with none of Australia's key cancer or public health bodies endorsing prostate screening, the Coates incident and the public debate it unleashed presents an important case study in the public communication of cancer risk, and on the ways in which an epidemiologically contested issue can play out for public consumption. In this paper we analyse the rhetoric of the public debate on PSA screening as it occurred in the Australian news media between 2003 and 2006.

METHODS

Data collection

As part of a broader study of health issues on television[25] we recorded all news and current affairs items about prostate cancer broadcast on five Sydney free-to-air channels between 2 May 2005 and 18 December 2006. All Australian coverage published in capital city newspapers between 6 February 2003 and 18 December 2006 was obtained from the Factiva database to capture coverage of the Coates episode. Finally, transcripts were accessed from speeches on prostate screening made in the federal parliament in June 2003.

Data analysis

The concept of framing has long been central to media scholarship. Framing is critical in determining which issues come to dominate public discourse. Each television and newspaper item was assessed by the lead author for the frames used by those quoted: how issues surrounding prostate cancer were presented to promote a 'particular problem definition, causal interpretation, moral evaluation and/or treatment recommendation'.[26] For each news item, all attributed or paraphrased quotes identified with a named individual were subjected to frame analysis and whether they represented a positive or negative framing of prostate-cancer testing. If a statement supported or was consonant with the conclusion that men should seek prostate-cancer testing, it was judged positive. While some items on prostate cancer did not explicitly mention testing or screening, many implicitly suggested to the reader/viewer the importance of testing.

Thus, *positive* quotes either explicitly advocated population screening or provided information or commentary that implied that being tested was very sensible. These included items not explicitly about testing but which dealt with the incidence and seriousness of prostate cancer, new treatments or stated that it was important that men raise the issue of testing with their doctors. Statements classified as *negative* raised concerns about the efficacy of PSA testing and screening, the lack of supporting evidence, or serious, prevalent side-effects of post-PSA treatment. All attributed or paraphrased statements were allocated to one of seven categories which emerged from reviewing all statements. These were:

- **Caution and concern about PSA testing**
  - Statements questioning the reliability of PSA screening and/or its impact on mortality rates;
  - Statements highlighting common side-effects of post-testing treatment;
  - Statements stressing the need to wait for results from incomplete randomized trials.

- **The imperative of testing**
  - Statements stressing the importance of testing and screening;
  - Statements stressing the importance of education programmes for doctors and the public where the implication was that, once properly informed, men would opt for PSA testing;
  - Statements discussing men's reticence with regard to medical check-ups (implying this was unwise);
  - Reports on high-profile prostate-cancer cases to illustrate that the disease is no respector of social class or status.

- **Scientific progress**
  - Statements on progress in prostate testing or treatment underscored with subtexts that these improvements were further reason for men to get tested.

- **Reassurance on side-effects**
  - Statements intended to diminish concern about side effects of post-testing treatment and that improved techniques significantly decreased the likelihood of occurrence;
  - Statements suggesting that side-effects were preferable to death.

- ***Ad hominem* attacks**
  - Attacks on Professor Alan Coates and anyone supporting his concerns.

- **Gender equity**
  - Statements framing prostate testing as a gender-equity issue, inviting consideration that women have 'their' screening programmes and tests, and that men need theirs too.

- **Authenticity**
  - Statements from non-celebrity prostate-cancer survivors or those unlikely to survive their cancer because of the belief that they were diagnosed too late.

To determine coding reliability, 50 randomly selected statements were also coded by three other coders issued with the above definitions, and a Kappa statistic for inter-coder agreement calculated.

RESULTS

Across the sample period, 388 relevant print media articles and 42 television news items were located, containing 436 direct or attributed relevant quotes. The Kappa inter-coder agreement scores ranged from 0.759 to 0.9049, indicating excellent agreement.[27] Public discourse on prostate cancer in the Australian media during this four-year period was highly supportive of screening, with 86% of all quotes being positive. The remaining 14% raised concerns about the PSA test's reliability, associated side-effects or the evidence on screening being not yet 'in'.

Frequency of coverage varied over the period examined, being most intense in the two months following the February 2003 publication of Coates' position regarding PSA testing. During 2003, *ad hominem* attacks on Coates were the second most frequent category, subsiding by the end of the year. Television items broadcast in 2005 and 2006 were dominated by reports of technological advances, accounting for just over 31% of all statements made on television. These often derived from interviews with cancer patients undergoing new treatments, survivors, or those with advanced cancer who believed they would have benefited from early detection.

Television's concentration on emotive human interest stories and reports of technological innovation contrasted with print media coverage. Television news, for example, failed to report on an article in the July 2005 issue of *JAMA* which raised concerns about the reliability of the PSA test, suggesting it had made no difference to prostate cancer-related mortality rates in the US.[11] Seven newspaper reports, by contrast, covered the issue.

News actors

Table 1 shows that discourse on PSA testing in Australia has been dominated by a handful of individuals. Coates made nearly half of all statements questioning PSA testing. The pro-screening position was championed particularly by urologists Tony Costello and Philip Stricker, federal politicians and prostate-cancer survivors Jim Lloyd and Wayne Swan, and Max Gardner and other Prostate Cancer Foundation of Australia (PCFA) spokespeople. Together these individuals contributed over one in three of all supportive comments.

Table 2 shows the distribution of themes raised in PSA testing discourse. Each of these, with illustrative examples, is now explored.

Caution and concern

Statements questioning any aspect of PSA testing accounted for 14% of all statements and were dominated by Coates. Citing a lack of 'reliable medical proof that routine testing saves lives',[28] he argued that PSA testing 'turns healthy

Table 1 **Frequency of leading news actors' statements in television and press coverage of prostate cancer**

	Print (06-02-2003 to 07-12-2006)	*Television (02-05-2005 to 15-11-2006)*	*Number*
Screening critics			
Coates	26	2	28
Cancer Council Australia and state Council personnel; other cancer organizations	11	0	11
Academics	8	0	8
Others (authors of letters to Editor e.g.)	12	1	13
Subtotal	57	3	60
Screening advocates			
Dr Tony Costello	41	4	45
Dr Phil Stricker	22	4	26
Other clinicians	37	15	52
Max Gardner/other PCFA officials	21	0	21
Federal MP Jim Lloyd	13	0	13
Federal MP Wayne Swan	24	7	31
Other politicians	6	0	6
Celebrity, high profile cases	24	18	42
Others (including 'everyman' survivors)	100	40	140
Subtotal	288	88	376
Total	345	91	436

older men into cancer patients or cancer suspects' and that 'there is no proof it helps to stop them dying from the cancer.'[18] His rationale for his ostensibly counter-intuitive position on early detection was the absence of evidence on the efficacy of screening, a situation which would improve when results were available from trials underway in Europe and the USA.[29] Coates consistently stressed that, in making a choice about testing, men should be fully informed by their doctors about *all* possible outcomes of PSA testing.

The imperative of testing

The imperative of testing was the most frequently invoked frame, constituting 41% of all statements. Early detection was stressed as vital in reducing mortality rates, and particularly important for asymptomatic men. Urologist Stricker stated that the PSA was 'definitely a test that can minimize your risk of prostate cancer. We have treatment that can cure prostate cancer. And you can't find prostate cancer if you don't look for it.'[30] Politician Lloyd contended 'I knew nothing about it and had no symptoms. I would have gone back to doctor in five to eight years time and he would have been saying ''sorry mate''.'[31] Politician Swan described himself as 'a 48-year-old prostate cancer survivor, whose father died from this cancer, I owe my current good health to early detection and a radical prostatectomy.'[32]

Table 2 **Frequency of themes in prostate cancer news statements, 2003–2006 (*n*=436 statements)**

	Print (06-02-2003 to 07-12-2006)	*Television (02-05-2005 to 15-11-2006)*	*Total*	*%*
1 Caution and concern	57	3	60	14
2 The imperative of testing	133	45	178	41
3 Scientific progress	43	31	74	17
4 Reassurance on side effects	24	8	32	7
5 *Ad hominem* attacks	27	1	28	6
6 Gender equity	24	7	31	7
7 Authenticity	27	6	33	8

Their confidence in the test rarely mentioned supportive evidence, something difficult to insert into media discourse largely limited to soundbite-length statements. Urologist Costello referred to falling mortality rates, purportedly as high as 25%,[33,34] in 'those countries where PSA testing has been available for some years', claiming this was only 'presumably because of the benefits of PSA testing, early diagnosis and available curative treatment.'[35]

The importance of educating both doctors and the public was raised by screening advocates and echoed in letters and editorials. While Coates also supported education and men consulting their doctors, pro-screening advocates were confident that education would generate screening: 'if men were given the ''right'' information, they would choose to get tested'.[36] Celebrity survivors Robert De Niro,[37] Colin Powell,[38] Rupert Murdoch[39] and Rudi Giuliani[40] featured in reports.

Scientific progress

Statements about scientific progress in prostate-cancer testing and treatment comprised 17% of all quotations and 31% of all televised statements over the study period. Optimistic accounts of research into vaccines, chemotherapies, nerve-sparing surgery and radiotherapy, particularly brachytherapy, were common. This category included statements on research into testing procedures which, while being plainly supportive, sometimes acknowledged doubts about the efficacy of the PSA test: for example, 'We've had PSA testing for 20 years and while it is a good indicator that something is going on in the prostate, it is not a test for cancer.'[41] Others agreed with Coates that 'some of them tend to grow very slowly and don't kill people, some of them tend to grow very quickly, and what we need is a test that distinguishes between the two.'[42]

Reports featuring scenes of robotic microsurgery and other technological wizardry had particular appeal for television programmers. Such scenes were dramatically narrated by reporters who referred to the equipment's development 'by US defence forces and NASA',[43] and stated that 'it could be a scene from a science fiction movie'[44] but that 'It's not science fiction, it's fact.'[45]

Reassurance on side effects

Screening advocates tended to downplay the severity of adverse outcomes (urinary and faecal incontinence, sexual dysfunction), highlight improved treatments and frame side-effects as a reasonable alternative to death. Incontinence was described as a 'rare side-effect',[46] 'rare and no longer a factor'[47] or as having 'less than 2% risk after surgery or radiation.'[48] Costello acknowledged postoperative impotence was of concern: 'There is so much baloney talked about it but if you are treating cancer for cure, it is the key problem.'[48]

Stricker said that nerve-sparing surgery enabled 80% of men to regain sexual function[46,49] and that 'a further 20% are helped by drugs such as Viagra.'[46] Reassuring testimonies were provided by survivors Swan,[29] Lloyd,[31] and a prominent businessman who declared 'I'm pretty healthy and everything works. A lot of guys are worried about the incontinence and the impotency and all that stuff, but the technology today is such that there's very little adverse effect in those areas.'[50] One apparent anomaly emerging in discussions of surgical progress was Stricker's comment that the new technique had reduced post-operative incontinence to 31.7%, a considerably higher figure than 'less than 2 per cent risk after surgery or radiation' cited by Costello in 2003. (Given the considerable variance of this figure with other related estimates, it may be a mistake made by the journalist; however, the comment was not corrected to our knowledge.) Finally, Costello's media-friendly soundbite 'you can't have sex in a coffin' was used repeatedly.[20,43,51,52]

Ad hominem attacks

The 28 instances of personal attacks on Coates accounted for only 6% of total statements, but 24 of these appeared between mid-February and the first week of June 2003. During this period, he was accused of arrogance,[32] irresponsibility[46] and of taking the debate on screening backwards.[53,54] In response to this vilification, one observer urged Coates' antagonists to 'cool down this jihad'.[55]

Coates was accused of 'torpedoing' a high profile, $A1.5 million television PSA promotion campaign.[32,56–58] Swan believed 'this public policy vandalism must be exposed for what it is—contempt for men and their families'.[32] By 'advocating ignorance'[59] Coates would be causing suffering and death.[57] Stricker charged that Coates was obliged to provide a 'balanced view of a complex issue. If he fails to meet the responsibilities of this position, many men will suffer or die'.[47] Doubts were raised about Coates' competence to address the issue of screening. Costello argued Coates was 'preaching a very old dogma' and 'relying on epidemiology, which isn't an exact science', while another urologist described Coates as 'not in touch', adding that 'his data on side effects is ten years old. I don't think he's seen the devastating side effects of advanced cancer'.[58] A former federal health minister expressed surprise 'that the head of the Cancer Council could put his medical opinion against that of specialists who work in the field of urology'. Costello compared Coates' experience unfavourably with his own: 'I'm at the coal face, I deal with prostate cancer day in and day out. Coates is a public health doctor now, he's a bureaucrat. We are coming at a clinical problem from completely different positions'.[47]

This rancorous abuse reached the floor of the parliament in March 2003.[60] Swan claimed, incorrectly, that Coates

had 'publicly advised men not to get tested', adding that the 'ivory tower elitism of some cancer experts like Professor Coates, who refuse to empower Australian men by sharing their knowledge about prostate cancer and its treatment, is a disgrace'.[20] He further accused Coates of continuing 'to spread inaccurate and scientifically false assertions' and charged that The Cancer Council Australia had issued a 'blatant lie' in its assessment that the cases for breast and prostate cancer screening were fundamentally different.[20]

To his detractors, Coates' positions as head of The Cancer Council Australia, and his place on the board of the PCFA, from which he resigned in April 2003,[61] had become untenable. It was alleged that it was 'completely inappropriate for the chief executive of the Cancer Council, which runs a message that early detection is the best protection, to say that in his personal case he doesn't believe in it'.[62] His stance would mean that 'support for the Cancer Council will drop precipitously because of his incredibly inconsiderate and extreme views'.[47]

In contrast, statements by Coates and others[30,53,60,63–5] focused on the place of evidence in the debate. Criticism was also levelled at this small group, with Costello writing:

> *'Just as our prostate cancer doctors, (GPs, urologists, medical oncologists) who counsel, diagnose, and treat men for their commonest lethal cancer thought it was safe to give out appropriate information, the orchestrated barrage from our ivory-tower health bureaucrats opened up again'.*[35]

Coates responded that his critics had failed to provide a 'shred of scientific response'[58] and their position was 'based on an untested assertion and, as such, is a matter of faith not science.'[47]

Gender equity

This category included comments comparing the similar burden of disease from breast and prostate cancer in Australia[34,66] and the gulf in allocated resources. According to one urologist, who elsewhere downplayed postoperative complications, 'the sexual dysfunction men suffer after prostate cancer treatment is equivalent to the mutilation women suffer from mastectomy'.[48] To Swan, men's reluctance to seeking testing was because the prostate was 'secret men's business . . . People sidle up to you in the street. It's what I call the brotherhood. Men don't talk about their health like women do, nor do they look after themselves properly'.[67] Less subtle rebukes to reluctant men included the call to 'be a man' by a former president of the Australian Medical Association and 'Don't be a pussy, go and check the check' by a popular comedian and daughter of a man who had survived prostate cancer.

Men were often portrayed as being poorly informed about the disease,[31,32] which was often attributed to the weakness of the 'men's lobby' relative to its women's counterpart.[44,68–71] This perceived imbalance was also said to be responsible for the much larger funding breast cancer attracted for public education and research.[51,65] Swan alluded to an almost conspiratorial 'secret agenda to deny men access to cancer testing'.[30] Men were said to be disadvantaged by the federal Pharmaceutical Benefits Scheme, specifically in the case of the drug Taxotere, then government subsidized for breast cancer treatment, but not for prostate cancer. Costello summed up: 'I'm tearing my hair out wondering why men are being shortchanged . . . [women] are winning due to their advocacy, not because of the science'.[72]

Authenticity

The final category comprised statements made by prostate-cancer survivors and others facing terminal cancer which, they believed, could have been avoided had they been tested. High-profile survivors were obvious examples, but a number of reports featured unknown or less known 'everyman' members of the public.[73–75] A *Sixty Minutes* feature showed a survivor affirming that his prostatectomy had saved his life: 'if I hadn't had it out, well, I'd be dead';[76] and a desperately ill rock musician, who later died, but while alive was certain that PSA testing would have saved him: 'If I knew then what I know now, they would have picked it up'.[77]

DISCUSSION

In June 2003, a journalist described the issue of screening as a 'flashpoint in prostate cancer':

> *'. . . on one side are the public health specialists whose position is backed by research. They say there is no strong medical proof that testing for prostate cancer saves lives. On the other side are organisations of men who have had prostate cancer and whose position is backed by personal experience. They say the test saved their lives.'*[60]

Four years on, results of randomized trials are still pending. However, our analysis demonstrates that there has been a significant shift in reporting of prostate-cancer screening. From a relatively balanced discourse in the immediate wake of Coates' February 2003 statement, the Australian media thereafter exposed the public to an imbalanced diet of reportage and commentary that either explicitly or implicitly endorsed population screening for prostate cancer. From 2004 on, television coverage has largely eschewed any mention of the debate in favour of unquestioning promotion of screening and stories of high-tech surgical techniques and other treatment advances.

In large part this is due to the aggressive promotion of screening by a small number of advocates, both urologists and survivors. Prostate cancer survivors' passionate advocacy for screening has been described as 'survivor *joie de vivre*' creating 'an evangelism for the test.'[63] This pro-screening zeal has not, however, been supported by recent evidence on the efficacy of the PSA test. Costello attributed allegedly dramatically reduced prostate cancer-attributable mortality rates in Canada, US and Austria 'where PSA testing has been available for some years' to 'the benefits of PSA testing, early diagnosis and available curative treatment.'[35] However, he also admitted 'I'm not going to say there is proof, but there is suggestive evidence that PSA testing is reducing mortality.'[30] The public, however, would have been left in little doubt that such equivocations were reason to question the testing imperative juggernaut.

In 2005, Stricker stated that the current PSA protocol failed to distinguish between fast-developing tumours that required treatment and slow developing ones that did not.[42] July 2005 news coverage of research questioning PSA testing[11] would have raised further doubt, as would the reaction of an Australian urologist who claimed the findings showed the test 'can be unreliable depending on how it's used and that we need to be more sensitive in how we apply the test.'[78] For all this arcane debate, pro-screening advocates could always fall back on folk wisdom, with Costello noting that 'The absence of absolute proof does not predicate the absence of common sense';[35] men should get tested.

Adverse side effects of prostatectomy provide a particularly unambiguous example of how the screening discourse has been framed in the media. Assurances from advocates that incontinence was now virtually a non-issue and that the likelihood of postoperative impotence has been greatly reduced by recent surgical advances contrast dramatically with published evidence. A 2002 review found post-prostatectomy 30-day mortality rates ranging from 0.3–1%; that 15–50% of men who had a radical prostatectomy had 'some urinary problems'; and that 'at least 20%, perhaps as many as 70%, of men have worsened sexual function as a result of radical prostatectomy'.[78]

The review acknowledged that its estimates for brachytherapy treatment were less precise, given its relatively short history, and were based on a limited number of high-quality studies. Early findings indicated that post-brachytherapy treatment, 21% of patients experienced impotence and 36% decreased erectile function, while a 'majority of men will have distressing urinary symptoms in the first months after brachytherapy, and 6% to 12% will have such symptoms 1 year later'.[78] The review also suggested an important factor which may go some way towards explaining the considerable disparity between the evidence reviewed and the claims on adverse effect rates proffered by pro-screening advocates. Current evidence, the review noted, is mixed about the extent to which newer nerve-sparing surgical procedures reduce rates of side-effects 'outside of excellent academic centers'.[79] This distinction is particularly pertinent to Australia, where today only three facilities have the highly sophisticated and expensive da Vinci robotic surgical equipment and just 10 surgeons have been trained in its use, nine of whom work from private hospitals and clinics.[80] The probability of any Australian man undergoing surgery with the benefit of such technological assistance would be extremely low.

Furthermore, although advantages in terms of decreased patient pain and recovery times have been reported with robotic surgery, long-term oncological benefits are uncertain, and there is no clear evidence of any substantial reductions in incidence of incontinence or erectile dysfunction.[81,82] An absence of long-term results is predictable, as the da Vinci system has only been in use since the late 1990s, but this 'lack of current clear evidence that there is true benefit associated with this technology'[83] has not stopped its Australian supporters from promoting its efficacy. As noted elsewhere, 'aggressive and commercial interests'[83] are key factors in promoting this costly technology, which currently has unknown benefit for key patient outcomes.

Given the media coverage of this issue, it would seem difficult for an average consumer not to believe PSA testing to be a sensible, rational decision, despite the dearth of supporting scientific evidence and the near universal failure of key cancer and clinical review agencies throughout the world to recommend population screening for prostate cancer. In Australia, efforts to marginalize Coates as an irresponsible maverick—not a 'real' doctor who dealt with patients rather than statistics—would appear to have succeeded, with a virtual absence of any coverage of views cautioning about prostate screening after the campaign against him subsided. Australian men remain poorly served by news media accounts of prostate cancer. With the exception of Coates, Australian cancer control agencies have done little to try and balance the aggressive promotional efforts of pro-screening advocates.

Competing interests RM works for The Cancer Council NSW, and SC was a board member of the organization from 1997 to April 2006. The Cancer Council NSW does not support population screening for prostate cancer

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Contributorship RM analysed the print and television media clips, wrote the initial draft and contributed to subsequent revisions. SC conceived of the study, edited the initial draft and contributed to subsequent revisions. SH compiled and analysed the television material and contributed to revisions. KM oversaw the Kappa analysis and contributed to revisions.

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